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| Applicants: | Himke Van Der Velde, *et al.* | §Group Art Unit: | 2617 |
| Application No | 10/552,295 | §Examiner: | Schwartz, Joshua L. |
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Customer No.: 27045

For: Mechanisms For The Addition Of New System Information Block (SIB) Types In Telecommunication Message(s)

***Via EFS-Web***

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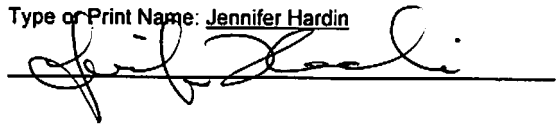


## APPLICANTS' REPLY BRIEF FILED UNDER 37 C.F.R. §1.193(b)(1)

In response to the Examiner's Answer having a mail date of May 20, 2010, the Applicants submit this reply brief to address the Examiner's arguments.

## Argument

First, the Examiner asserts that "system information 'tags' . . . are equivalent, *i.e.* another name for, 'system information block type fields'." That statement is incorrect, as can be shown from a closer reading of Wiberg, which describes how System Information Blocks (SIBs) can include ***both*** a "block type" and a "value tag:"

> Each system information block, in certain embodiments, may include the following fields: **block type**, expiration time, **value tag**, and/or parameter value(s). The block type refers to a block type definition that specifies what system information elements or parameters are included in the block, as well as a default expiration time, the size of the value tag, and the scope of the block 55. The scope is the area where the block 55 may potentially be used; it may be either the cell where the block is broadcast or the PLMN. In the case of PLMN scope, the block 55 may be used in other

> cells in the same PLMN, depending on the value tags as discussed herein. The expiration time, of course, indicates how long the parameter values may be used by a MS without being re-read. If this field is not present in a block 55, then a default expiration time may be used by the MS. Thus, a MS that receives a block 55 may use the parameter values in the block so long as: 1) the expiration time has not expired or passed, 2) the current cell is within the scope of the system information block 55, and 3) the block type and value tag (if present) are currently valid in the current cell in which the MS is located as indicated by the master block 57. (column 14, line 42, *et seq.*; emphasis added)

Therefore, the patentability of Applicants' claims does not depend, as asserted by the Examiner, on "terms used in the reference [that] are synonymous with the terms 'system information blocks' and 'system information block type field' as described in Applicants' specification." (Examiner's Answer; page 18, line 11, *et seq.*)

Secondly, the Examiner states that:

> "Wiberg teaches that the SIB type values are included in master information blocks which contain the system information blocks Col 3. ll. 11-12, aka 'SIBs' and other referencing information blocks to which the SIBs refer, these SIBs contain system information parameters, Col 3, ll. 20-23. Wiberg also teaches that if the SIB value received by a mobile station is unknown, i.e. not within a nominal range, then the mobile station will retrieve system information, Col. 15 ll. 49-52 "If the [system information] tag is not found, the MS locates and reads the system information block from the appropriate broadcast slave channel indicated in the master block." (Examiner's Answer; page 18, line 24, *et seq.*; emphasis in original)

The Examiner reads too much into the teachings of Wiberg. As noted in the Background portion thereof:

> . . . problems with broadcasting system information in conventional cellular communication networks include the following. First, an MS is **forced to reread (e.g., at each cell change) system information parameters that may in fact be identical to earlier read parameters**. (column 2, line 28, *et seq.*; emphasis added) . . . In view of the above, it will be apparent to those skilled in the art that there exists a need in the art for . . . **reducing the need for a mobile station (MS) to re-read system information parameters at cell change when such parameters have, in fact, not changed at all from one cell to another**. (column 2, line 62, *et seq.*; emphasis added)

To address that problem, Wiberg teaches:

> In certain embodiments, tags are broadcast in master information blocks. Tags are each associated with one or more system parameters. For example, a given tag value may be indicative of particular values for three separate system information parameters. In each cell, a base station (BS) transmits or broadcasts currently valid tag values for that cell on a control channel. System information blocks including the system information parameters themselves are in turn broadcast by the base station (BS) in each cell on the same or other control channel(s). When a mobile station (MS) enters a new cell and locks onto a new control channel, it reads the valid tag value(s) in that new cell via the master control channel. If the MS determines that ***it already has stored*** and/or is using the system information parameters corresponding to all valid tag values, then there is **no need** for the MS to read the system information parameters in the new cell at cell change. ***If***, however, the MS determines that it **does not have** stored certain system information parameters corresponding to valid tag value(s) in the new cell, then the MS reads the necessary system information parameters. Thus, in certain embodiments of this invention, the use in a cell of several tags is provided with each tag including part of the system information; thereby making it possible to change a subset of tags in a cell and thus making it possible for a MS to only have to read the relevant new system information. (column 3, line 24, *et seq.*; emphasis added)

Thus, it can be seen that what Wiberg teaches is a **mobile station** re-reading a particular System Information Block (SIB) only ***when*** it is determined that **the mobile station** has not previously stored the system parameters in such SIB and identified by a particular "tag." As noted above, the Examiner points to column 15, lines 49-52 as teaching "that if the SIB value received by a mobile station is unknown, i.e. not within a nominal range, then the mobile station will retrieve system information." That is *somewhat* correct; the exception being that there does not appear to be a teaching in Wiberg of a "tag" being "not within a nominal range." The reason an SIB *parameter* is considered "unknown" to a mobile station is because the associated "tag" is not found in the mobile stations current "block tag list," as described at column 15, line 40, *et seq.*, to wit:

> Each time a header block 57 is read for the cell in which the MS is located, the block tag list is compared with the previously stored list. If any tags have been removed, the corresponding parameters are considered as ***unknown*** until received in a valid system information block 55. If any new tags have appeared (e.g., because of movement by the MS into a new cell), the MS searches its memory 43 for a stored block with a matching tag. If one is found (and its expiration time has not passed), the corresponding information is entered into the parameter list. If the tag is not found, the MS locates and reads the system information block from the appropriate broadcast slave channel indicated in the master block. (emphasis added)

Thus, it can be seen that the reason a "tag" is "unknown" is not because it is "not within a nominal range," but because it is not currently in a mobile station's block tag list.

Finally, the functionality pointed to by the Examiner in Wiberg is executed in a **mobile station**; if a mobile station receives a master information block containing a tag *not* currently stored in its block tag list, the mobile station locates and reads the system information block from the appropriate broadcast slave channel indicated in the master block. In contrast, the invention recited by Applicants in claim 8 relates to a method of operating "a node of a telecommunications network which prepares network system information for transmission across an air interface to a user equipment unit [*i.e.*, a mobile terminal]." The method of claim 8, therefore, is not performed in a mobile terminal which can receive and read SIBs, but rather in the network mode which prepares and transmits such SIBs. That method is directed to overcoming a limitation in the types of system information blocks (SIBs) available according to Technical Specification 3GPP TS 25.331. *To overcome the limited types of SIBs according to TS 25.331*, the claimed invention introduces the use of an SIB "type extension indicator" and a "type extension field." Although the teachings of Wiberg do relate, in part, to the use of SIBs, there is no teaching therein to include a SIB "type extension indicator" ***in*** an SIB type field **"when the system information block type for a system information block referenced by the referencing block does not have a system information block type value in a *nominal range* of system information block type values."** The Applicants' invention is characterized by the addition of a "type extension indicator" *in* an SIB type field. It is the fact that an SIB type, **outside of the nominal**

**range** of system information block types, is to be used for which Applicants have invented the use of a type ***extension*** indicator. If the SIB type to be used was within the ***nominal*** range, then it would simply be used; the use of a "type extension field," *however*, allows for the use of SIB types not envisioned, for example, by Technical Specification 3GPP TS 25.331. Wiberg fails to teach that functionality and, therefore, the Examiner has not established that claim 8 is anticipated thereby.

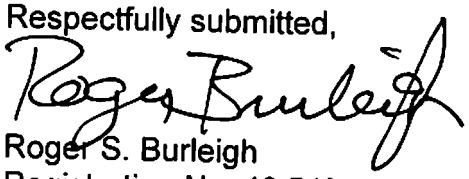
The set of claims beginning with independent claim 15 is directed to a method performed in a user equipment unit (*i.e.*, a mobile terminal) for recognizing and utilizing such SIBs having a block type outside the nominal range of SIB type values, as presented in claim 8. Similarly, the set of claims beginning with independent claim 47 is directed to such mobile terminal embodying that functionality, and the set of claims beginning with independent claim 51 is directed to a system, including both the network node and user equipment unit, embodying such functionality. Therefore, those claims are also not anticipated by Wiberg.

* * *

## CONCLUSION

As established by the arguments in Appellants' original brief, and further elaborated herein in response to the Examiner's Answer, claims 8-16, 31-35 and 39-51 are patentable over the prior art of record, and the Applicants request that the rejections thereof be reversed and the application be remanded for further prosecution.

Respectfully submitted,



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